MAXWELL JONES

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science in Artificial Intelligence

Additional Major in Mathematics

Thomas Jefferson High School for Science and Technology, Alexandria, VA

High School Diploma

Expected Graduation: May 2023

GPA: 4.0/4.0

2015-2019

GPA: 4.1/5.0

PROJECTS

MIT BattleCode January 2021

- Worked on team of 4, coding an AI bot in java to compete in a tournament run every year by MIT.
- Leveraged distributed communication algorithms and pathfinding to increase bot's effectiveness.
- Placed 9th out of over 250 teams internationally, 1st out of all first-time teams.

Walksafe | CMU TartanHacks

February 2020

- Developed a Python program on team of 4 that calculates safe and efficient walking paths at night in New York City.
- Created a weighted graph from crime and street data and implemented an A* algorithm to generate optimal paths.
- Integrated Open Street Map API and fetched data from NYPD crime database REST endpoint.

Origami Social Network

August 2018-May 2019

- Developed a Node.js application that allows origamists to connect with each other and share their work
- Implemented user accounts, used MD5 hashing to safely store passwords, added cookies to store login data.

EXPERIENCE

SWE/ML Intern | *Facebook*

Summer 2021

- Developed a data perturbation training/evaluating/testing pipeline for the Probability: Uncertainty team.
- Designed and tested probabilistic pytorch models to analyze out of distribution data recognition.
- Specifically focused on MNIST and FashionMNIST datasets, comparing different model architectures

Data Science Intern / Fiat Chrysler Automobiles

Summer 2020

- Optimized the HR absentee prediction model in Python resulting in a 2% increase in accuracy.
- Improved neural network performance by cross referencing crew attendance across plants.
- Queried data from PostgreSQL database and used Pandas dataframe library to store query results.

Teaching Assistant / Multiple Courses

Fall 2020, Spring 2021, Fall 2021

- TA for both 15-151 Discrete Math and 15-251 Theoretical Ideas in Computer Science.
- Teach 20-student recitation twice per week as well as helping and creating course content.
- Lead review Sessions and game nights with >100 people per event
- Host weekly office hours, grade homework and exams, and attend weekly staff meetings.

SKILLS

Programming: Python | Java | C | SQL | Julia | JavaScript | HTML | Latex

Tools/Frameworks: Sklearn | Keras | NumPy|Pytorch | Jupyter Notebook | Pandas | Git | Unix Command Line

Coursework: 15-281 Artificial Intelligence | 10-315 Machine Learning | 15-2s13 Computer Systems | 15-251 Great Theoretical Ideas in Computer Science | 15-122 Principles of Imperative Computation | 21-325 Probability Theory | 21-260 Differential Equations | 15-151 Concepts in Mathematics | 21-484 Graph Theory.

INVOLVEMENT

Treasurer for CMU's Black Student Union, Origami Club Officer, Club Basketball, Kappa Sigma Fraternity.